

Abstract of the Disclosure:

A permanent magnet type rotating electrical machine capable of reducing core loss due to armature reaction magnetic flux and making an effective use of reactance torque. A permanent magnet type rotating electrical machine comprising a first rotor core containing a permanent magnet and a second rotor core having a flux barrier without magnet, wherein a concave portion is provided between poles in the vicinity of outer surface the rotor core containing the permanent magnet and the length of the gap in the magnetic path on the q-axis side is increased to ensure easy passage of the magnetic path of the armature reaction magnetic flux on the reluctance torque rotor side, whereby a permanent magnet type rotating electrical machine delivering a large output can be obtained by making an effective use of reluctance torque.

[Selected Figure] Fig. 1